by common usage became called health care. All of this seems innocent enough on the surface, but word-symbols are important. We use them to think and to express our thoughts, and they are important in the development of ideas, concepts, attitudes and beliefs. Words must be used accurately with respect to their meanings, or thought; when words are used inaccurately, ideas, concepts, attitudes and beliefs can become distorted and lead to unintended and usually unrecognized irrationality. There are some of us who believe this may be what has happened as health care has gradually replaced medical care in both professional and public parlance.

This subtle substitution of the health word-symbol for sickness word-symbols appears now to have produced costly confusion as to who is responsible for what in health and the mistaken assumption or belief that medical services provided by health insurance can somehow be expected to assure health. The evidence for this is to be found in the government's loudly proclaimed emphasis on the prevention of illness and maintenance of health through medical services available through health insurance or otherwise, and the related public castigation of the medical profession because it succeeds so poorly in keeping the public well.

It seems likely that much of the confusion and no little of the expense in medical and health care stems from this arbitrary displacement of a word symbolism which to be sure connotes unpleasantness and discomfort with one which implies well-being and vitality. The expensive confusion which seems to be the unfortunate result of this innocent symbol substitution will not be easily sorted out, for we all think with symbols which come to have meanings for each of us, though not always the same meanings for all of us. But sorted out it should be, for the primary function of medical care (now known by common usage as health care) is to diagnose and treat the sick, injured and emotionally disturbed, and seek to restore them to as much health and quality of life as is possible. Yet physicians and the medical profession have a duty to contribute their knowledge and expertise to health for individual persons and the public. The preventive measures medicine can offer are important but limited. The assurance of health is actually largely the responsibility of all well persons themselves and of society as a whole, although physicians can and should be well-informed advisors. But neither health insurance nor health care can assure health and any thesis or assumption to the contrary is illusory and needs to be exposed for what it is whenever and wherever it appears.

—MSMW

Hidden Spinal Malformations

WHEN CLINICIANS refer to a disorder as hidden or occult they seldom pause to consider that most of the ills of man are in a sense hidden—beneath the surface. The important components of those malformations that affect the spine are more often hidden than apparent: spina bifida occulta is more common than spina bifida apperta. Yet there are always clues to that which is hidden. The extraordinary increase in our experience of spinal dysraphism in the last 15 years bears witness to the spreading awareness of those syndromes especially among pediatricians, orthopedic surgeons and urologists. When considering the causes of lower limb asymmetry or weakness or urinary incontinence or repeated urinary infections, it is only necessary to examine the skin on the back carefully to determine whether the next stage of investigation should be radiography of the spine. This is because *both* the principal derivatives of ectoderm—the skin and the central nervous system—are likely to be affected by those influences which cause malformations. The mesodermal element, the skeleton, will inevitably be affected too —hence the need for radiography. Whether to investigate further and how to do so are questions not settled among those with experience of these disorders.

It is well to remember that in many cases the lower limb abnormality or sphincter disturbance is present at birth and should be regarded as an associated abnormality rather than resulting from cord malformation. When there is evidence of *progressive* neural loss, there can be no question that an attempt must be made to arrest that progress. When the cord is partially immobilized by a short thick filum or fibrous band or dermal sinus or a structure running between the half cords of diastematomyelia, mobilization by spinal exploration is certainly effective. The complex lipoma, however, may intermittently involve cord and nerve roots so that dissection must carry the risk of damage and may fail to achieve complete freedom of the neural structures. Before such

surgical intervention, most neurosurgeons require a clear delineation of the structures and the spinal canal, which means myelography. Air has been the most favored contrast medium but is being rapidly superseded by metrizamide.

The recognition of spinal dysraphism (perhaps miscalled occult or hidden, except by those who do not realize the significance of the stigmata) is often possible in children who have no lower limb or urinary troubles. Confirmation of probable cord malformation by plain spinal radiography then poses the question whether myelography should be carried out. What happened to all those children whose dysraphism was overlooked years ago? Probably only a small proportion suffered progressive neural damage. Yet it is very likely that early operation can reduce this risk to nearly nil.[1] To await muscle weakness or sphincter disturbance—both difficult to detect in the early stages in a young child—is to allow an irreversible disability to develop. The question of preventative or prophylatic surgical operation is unresolved. I think, however, that we can more readily accept that operation is justified in those otherwise normal children who have certain types of dysraphism such as diastematomyelia with the cord closely applied to the bony spur, or a cord greatly immobilized by bands or attached to the dura.

There is one important aspect of spinal dysraphism where there can be no controversy and where we may be grateful for the information derived from a study of a large number of these children. The suspicion that these conditions were genetically related to neural tube malformations—spina bifida cystica and anencephaly—is now well proven.[2] A study of the families of 207 patients with spinal dysraphism showed that the mothers were as likely to produce siblings with these lethal or gravely disabling conditions as were those mothers who already had given birth to a baby with anencephaly or spina bifida cystica. It follows that such mothers should be offered prenatal screening for neural tube malformation by alpha fetoprotein estimation in blood or amniotic fluid. The parents with children with spinal dysraphism should therefore be informed of these possibilities. Here lies a fresh incentive to detect those children with spinal dysraphism even if the condition is not thought to require operation.

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A Brain Drain to Elsewhere?

THE NEWS that some American research scientists are beginning to find government restrictions and red tape so difficult or impossible that they are beginning to do their research abroad is disquieting. It suggests the possible start of something like a reverse brain drain which, if it occurs, could only be to the long-term disadvantage of this country. At the moment it is the promising and urgent research in recombinant DNA that is at particular issue, but the larger question is whether or not we will sooner or later regulate ourselves out of the running in scientific research as we appear to be doing in some segments of the faltering economy.

It was not too long ago that medicine in this nation benefited greatly from the immigration of many well-trained physicians and medical scientists from Great Britain. It will be recalled that they came to this country because of their dissatisfaction and frustration with insensitive governmental regulation and red tape in the National Health Service of that country. This exodus of physicians to the United States of America was considerable and was referred to on both sides of the Atlantic as the "brain drain." Its effects on the physician manpower of both nations remain to this day.

Politicians, like many other humans, tend to become uncertain and sometimes even to panic when faced with the unknown. This appears to be what has happened with our governmental approach to research with recombinant DNA. But mankind has not got where it is by running away from the unknown or trying to ignore it. Rather mankind has progressed by challenging the unknown and exploring it, even at some risk. The world is larger than the USA and the portents are that the research on recombinant DNA will be done elsewhere if not in America. A brain drain to elsewhere seems a high price to pay for what can at best be only a temporary and false sense of national security.

—MSMW